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## SECTION VI.—WEATHER AND DATA FOR THE MONTH.

### THE WEATHER OF THE MONTH.

By P. C. DAY, Climatologist and Chief of Division.

**Pressure.**—The distribution of the mean atmospheric pressure over the United States and Canada, and the prevailing direction of the winds, are graphically shown on Chart VII, while the average values for the month at the several stations, with the departures from the normal, are shown in Tables I and III.

The mean pressure for the month as a whole was above the normal over the greater portion of the country, the plus departures being rather marked over the western part of the Plains region and most of the Rocky Mountain districts. In New England and thence westward over the northern border States to Montana the means were somewhat less than the normal for the month, as was also the case in much of California, while in the Gulf States the monthly pressure was about normal.

At the beginning of the month high barometric pressure prevailed generally, save in the far Northwest and in the region of the Great Lakes, where readings were comparatively low, but during the first decade relatively low pressure was the rule in most northern districts with higher readings to the southward. During the first half of the second decade barometric changes were rather marked, but soon after the middle of the month high pressure again prevailed quite generally. Pressure was markedly low over New England about the close of the second decade, but this depression moved rapidly to sea and relatively high readings again were the rule over much of the country during the remainder of the month.

The distribution of the highs and lows was such as to favor the frequent occurrence of westerly winds over northern districts from the Rocky Mountains eastward to New England and winds from a southerly direction in the great central valleys; elsewhere variable winds prevailed.

**Temperature.**—At the beginning of the month moderately warm weather prevailed in all districts, with a tendency to higher temperatures during the following few days in the central valleys. With only slight variations warm weather for the season continued over nearly all portions of the country until about the middle of the month.

By the morning of the 16th a well developed cold wave had overspread the Plains region, and the first zero temperatures of the year were reported. This cold wave rapidly overspread the central valleys and the Gulf States during the following few days, causing freezing temperatures almost to the Gulf and South Atlantic coasts. Following closely upon this period of low temperatures, a second cold wave moved rapidly from the Northwest, reaching the central valleys by the 19th and the Gulf and South Atlantic States during the 20th and 21st, at which time some of the lowest November temperatures ever recorded in those districts were reported. Freezing temperatures reached the coast lines of the southeastern States and extended well into central Florida, and light frost was reported as far south as Miami in that State.

With the disappearance of the above mentioned cold wave off the South Atlantic coast about the 24th, warmer weather became general and the last week of

the month was unusually warm for the season over northern and central districts and moderately warm over practically all other portions of the country.

For the month as a whole the average temperature, as in the preceding month, was above the normal in all districts save for a few points in the southeastern States, along the New England coast and on the coasts of Oregon and northern California, where the means were normal or slightly below.

Maximum temperatures were high over the central portions of the country from the Atlantic to the Pacific on several dates during the first week of the month, the readings at a number of points being as high as or higher than had previously been observed in November. Minimum temperatures were unusually low on the 20th and 21st over the east Gulf and South Atlantic States, but otherwise they were within the limits of previous years.

**Precipitation.**—The month opened with generally settled weather conditions and clear skies prevailing, save for precipitation in the far Northwest, and local showers in the region of the Great Lakes. The north Pacific storm area moved eastward over the more northern districts, reaching the St. Lawrence Valley about the 5th, but over the central and southern portions of the country fair weather continued. On the morning of the 9th a disturbance had appeared off the South Atlantic coast, and rains had fallen quite generally from the Mississippi River eastward, with general thunderstorms in the Southeastern States. By the following day, however, this disturbance had disappeared from the field of observation and fair weather had again become general in all portions of the country.

Early in the second decade a storm area advanced from the Canadian Northwest, reaching the Lake region, attended by high winds, rain, and snow, about the 13th. At the same time another disturbance of considerable magnitude was advancing from the far Northwest, and a moderate depression had appeared in the Gulf of Mexico, resulting during the following few days in the occurrence of precipitation over much of the country, with some especially heavy falls at points along the Gulf coast. By the 17th the last of these disturbances had passed to sea and fair weather prevailed generally.

On the morning of the 19th a shallow depression appeared off the South Atlantic coast, which advanced and coalesced with a disturbance that was moving eastward over the Lake region, forming a marked storm over New England the following day, attended by heavy snow in the interior of New England and northern New York and rain on the coast.

During the first few days of the third decade fair weather prevailed quite generally, but rain set in over the Southwest about the 23d and spread slowly eastward and northeastward during the latter half of the decade, covering most districts east of the Mississippi River by the end of the month, some heavy falls again occurring in portions of the Gulf States.

For the month as a whole precipitation was scanty and largely deficient over most of the country. In the Ohio Valley the monthly totals were but little over an inch, while in the upper Mississippi Valley and from the central and northern Plains States westward to and in-

cluding the Plateau region the precipitation for the month was generally negligible, large areas in those districts receiving no measurable amounts. In Tennessee and over the Atlantic coast States from Virginia northward the precipitation was likewise markedly deficient, as was also the case over the Pacific coast States, except locally along the coast of Washington where the amounts were somewhat more than normal. However, over most of the Gulf States the rainfall for the month was generous, amounting to from 4 to 5 inches, while small areas near the coast received excessive falls, as did also the southeastern coast of Florida, points in the southern Appalachian region, and the lower Rio Grande Valley.

## GENERAL SUMMARY.

The month as a whole was marked by an unusual amount of warm, sunshiny weather in all districts, and a decided shortage in precipitation over much of the interior and western portions of the country.

Over the principal corn-growing States the warm dry weather permitted the gathering of the crop in excellent condition and the work was nearing completion in most districts, although the dry condition of the fodder delayed progress in some sections.

In the principal winter grain-growing districts the weather was fairly favorable for fall-sown grain, although at the close of the month rain was needed in many sections, especially in the central and southern districts to westward of the Mississippi River and in portions of the far Northwest.

In the cotton region the weather was favorable for picking and this work was largely completed during the month while other activities progressed satisfactorily, especially in the western districts, where the absence of frost and ample precipitation were very favorable for the trucking interests.

The severe cold over the southeastern districts near the end of the second decade did considerable damage to the trucking interests of that section, especially in the southern portions of Alabama and Georgia and in northern and central Florida, but the citrus interests of the last-named State escaped serious loss.

The dry weather over the interior and western districts greatly hindered the growth of fall pasturage, and the water supply in portions of the Ohio Valley and surrounding districts was becoming low at the end of the month, but the absence of snow over the great western ranges was favorable for continued grazing.

At the end of the month but little snow had fallen in the mountain districts of the West, and elsewhere the ground was free of snow, except in portions of New England, where small amounts were reported.

## Average accumulated departures for November, 1914.

Districts.	Temperature.			Precipitation.			Cloudiness.		Relative humidity.	
	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure for the current month.	Accumulated departure since Jan. 1.	General mean for the current month.	Departure from the normal.	General mean for the current month.	Departure from the normal.
	° F.	° F.	° F.	Inches	Inches	Inches			P. ct.	P. ct.
New England.....	39.2	-0.1	-6.4	2.54	-1.00	-6.10	6.0	+0.2	70	-8
Middle Atlantic.....	44.3	+0.5	+1.4	1.91	-1.00	-8.00	4.8	-0.5	65	-10
South Atlantic.....	53.8	-0.3	+4.0	3.42	+0.40	-11.70	4.1	-0.4	69	-9
Florida Peninsula.....	64.0	-0.4	-5.2	3.81	-1.60	-9.40	6.2	+1.7	76	-4
East Gulf.....	55.8	0.0	-2.6	2.89	+1.30	-3.00	4.6	0.0	71	-5
West Gulf.....	58.4	+2.0	-8.9	3.32	+0.70	-4.70	5.5	+0.9	74	0
Ohio Valley and Tennessee.....	46.6	+1.6	+6.6	1.45	-2.00	-8.20	4.6	-1.1	64	-9
Lower Lakes.....	39.9	+0.8	-3.6	1.65	-1.40	-3.00	6.9	-0.4	71	-6
Upper Lakes.....	26.3	+1.7	+11.5	1.74	-0.70	-1.20	6.7	-0.4	78	-2
North Dakota.....	31.9	+7.4	+29.3	0.40	-0.40	+2.30	5.1	-0.3	74	-5
Upper Mississippi Valley.....	42.9	+5.2	+24.8	0.48	-1.50	-4.30	4.4	-0.9	68	-6
Missouri Valley.....	45.0	+7.5	+33.1	0.16	-1.10	-0.50	3.6	-1.2	60	-11
Northern slope.....	39.1	+7.0	+25.9	0.21	-0.50	-1.80	5.4	+0.6	61	-6
Middle slope.....	48.4	+6.6	+23.7	0.18	-0.80	-4.10	2.7	-1.2	58	-4
Southern slope.....	54.0	+3.0	+10.8	1.88	+0.70	+5.90	4.0	-1.2	70	+8
Southern Plateau.....	52.7	+3.8	+7.5	0.52	+0.10	-0.40	2.4	-0.4	53	+10
Middle Plateau.....	41.0	+1.4	+12.2	0.07	-0.80	-0.40	2.4	-1.5	47	-11
Northern Plateau.....	41.5	+2.9	+21.9	0.59	-0.30	-0.90	6.4	+0.6	63	-11
North Pacific.....	46.7	+1.6	+17.2	7.44	+0.10	+3.10	8.2	+0.7	86	+2
Middle Pacific.....	55.2	+2.2	+7.7	1.04	-2.10	-2.80	2.9	-1.6	64	-11
South Pacific.....	62.7	+5.6	+21.9	0.32	-1.00	+2.20	3.1	-0.2	58	-9

## Maximum wind velocities, November, 1914.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
		mi./hr.				mi./hr.	
Alpena, Mich.....	3	52	se.	New York, N. Y....	17	50	nw.
Block Island, R. I....	19	58	ne.	Do.....	20	55	nw.
Buffalo, N. Y.....	1	52	sw.	Do.....	23	50	nw.
Do.....	4	60	sw.	North Head, Wash..	1	62	s.
Do.....	13	84	sw.	Do.....	2	56	s.
Do.....	16	56	w.	Do.....	12	84	s.
Do.....	17	66	w.	Do.....	13	58	w.
Do.....	25	54	sw.	Do.....	22	58	s.
Do.....	26	59	sw.	Do.....	27	54	se.
Do.....	27	54	sw.	Pensacola, Fla.....	27	62	se.
Canton, N. Y.....	4	60	w.	Do.....	28	60	se.
Do.....	13	59	sw.	Point Reyes Light, Cal.....	2	60	nw.
Cleveland, Ohio.....	13	50	w.	Do.....	5	52	nw.
Eastport, Me.....	13	52	s.	Do.....	13	64	nw.
Do.....	20	55	ne.	Do.....	14	50	nw.
Grand Haven, Mich..	17	53	w.	Do.....	30	66	s.
Hatteras, N. C.....	15	56	se.	Do.....	2	50	nw.
Lander, Wyo.....	13	74	sw.	Do.....	15	50	se.
Mount Tamalpais, Cal.....	1	55	nw.	Seattle, Wash.....	13	64	sw.
Do.....	13	60	nw.	Syracuse, N. Y.....	13	50	w.
Do.....	30	60	sw.	Tatoosh Island, Wash.....	2	50	s.
Mount Weather, Va..	8	56	nw.	Do.....	3	53	s.
Do.....	16	74	nw.	Do.....	4	52	s.
Do.....	17	50	w.	Do.....	8	61	s.
Do.....	20	58	w.	Do.....	12	65	e.
Nantucket, Mass.....	19	52	ne.	Do.....	13	51	nw.
New York, N. Y.....	2	52	nw.	Do.....	15	51	e.
Do.....	13	63	sw.	Toledo, Ohio.....	13	55	w.
Do.....	15	65	se.	Williston, N. Dak..	2	50	nw.
Do.....	16	54	nw.				